

(40)
An unordered collection of distinct objects called elements of the set.

Denoted as A, B, \dots and elements as a, b, \dots
ex: vowels of alphabets, rivers in India, etc.

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Representation of a Set

(i) Roster or Tabular form - In this form all the elements of the set are listed, the elements being separated by commas and are enclosed within braces.
ex: set of vowels. $A = \{a, e, i, o, u\}$

(ii) Rule method or Set builder form - In this method a set is defined by specifying a property that elements of the set have in common.
ex: $B = \{x : x \text{ is an even integer, } x > 0\}$

Some Special Sets

- N = The set of positive integer or natural numbers. $: 1, 2, 3, 4, \dots$
- Z = The set of integers $: \dots -3, -2, -1, 0, 1, 2, 3, \dots$
- Q = The set of rational nos.
- R = The set of real nos.
- C = The set of complex nos.

Finite Set - set with finite no. of elements in it. ex: vowels, months.

Infinite Set - set which contains infinite no. of elements. ex: ...